

PATENT COOPERATION TREATY

TRANSLATION

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:

Date of mailing (day/month/year)	See form PCT/ISA/210
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Applicant's or agent's file reference R. 306941 Hr/Kli		FOR FURTHER ACTION See paragraph 2 below	
International application No. PCT/DE2004/002543	International filing date (day/month/year) 18.11.2004	Priority date (day/month/year) 18.11.2003	
International Patent Classification (IPC) or both national classification and IPC F04B23/06, F04B1/053, B60T8/40, B60T8/36			
Applicant ROBERT BOSCH GMBH			

1. This opinion contains indications relating to the following items:

<input checked="" type="checkbox"/>	Box No. I	Basis of the opinion
<input type="checkbox"/>	Box No. II	Priority
<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
<input type="checkbox"/>	Box No. IV	Lack of unity of invention
<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
<input type="checkbox"/>	Box No. VI	Certain documents cited
<input type="checkbox"/>	Box No. VII	Certain defects in the international application
<input type="checkbox"/>	Box No. VIII	Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/EP	Authorized officer
Facsimile No.	Telephone No.

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Box No. I

Basis of this opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rule 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table(s) relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

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Box No. V	Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-10	YES
	Claims		NO
Inventive step (IS)	Claims	1-10	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-10	YES
	Claims		NO
2. Citations and explanations:			
1	<p>Reference is made to the following documents:</p> <p>D1: US 5 167 493 A (KOBARI ET AL) 1 December 1992 (1992-12-01)</p>		
2	<p>D1 is considered the closest prior art. It discloses a multiplunger pump as per the preamble of claim 1 (cf. figures 9, 10). D1 additionally discloses the following parts of the characterizing part of claim 1, that is to say an eccentric unit which has two eccentrics which are spaced apart axially, and the plunger pumps being arranged in a number of section planes of the pump housing, said number corresponding to the number of eccentrics, wherein the axial spacing of the eccentrics substantially corresponds to the axial spacing of said section planes.</p>		
2.1	<p>The subject matter of claim 1 differs from this in that the connecting ducts (32, 33, 36, 37) of the pump units (30a, b) are arranged in a region, which is delimited by said section planes (E1, E2), of the pump housing (10). The subject matter of claim 1 is therefore novel (PCT Article 33(2)).</p>		

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Box No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

- 2.2 The problem addressed by the present invention can therefore be considered that of producing a multiplunger pump which requires a relatively small installation volume (see application page 2, paragraph 3).
- 2.3 The solution specified in paragraph 2.1 is not known from the previously searched prior art. A combination of D1 with another document from the prior art would also not be obvious to a person skilled in the art. Claim 1 accordingly involves an inventive step (PCT Article 33(3)).
- 2.4 Claims 2-10 are dependent on claim 1 and therefore likewise meet the PCT requirements for novelty and inventive step.
- 2.5 The invention is industrially applicable in the field of pumps (PCT Article 33(4)).